

## REMARKS

A Final Rejection rejecting claims 4-5 and 7-11 was mailed on February 10, 2004. Applicant filed an Amendment After Final Rejection on February 26, 2004. In a communication dated March 11, 2004, Paper No. 18, the Examiner refused entry of the amendment, stating that the amendment "raised new issues which would require further consideration and/or search." Accordingly, Applicant has filed this Request For Continued Prosecution and Preliminary Amendment.

Claims 4-5 and 7-11 were substantively rejected in the Final Rejection of February 10, 2004, based upon the same art as was cited in the previous office action, namely Sznoppek et al., Sundqvist et al. and Corbett, Jr. Additionally, the Examiner rejected the pending claims 4-5 and 7-11 under 35 U.S.C. §112 as "failing to particularly point out and distinctly claim the subject matter which the applicant regards as their invention." The Examiner argues that the step of providing an integral gasket within the socket end of a polyethylene pipe is never positively recited in the body of the claim and that the preamble reference leaves the claim indefinite in scope.

This Amendment mirrors Applicant's Amendment After Final Rejection which was submitted specifically to address the Section 112 issues raised by the Examiner and to thereby place the case in better position for Appeal, if necessary. If the Examiner accepts the amendments made to the claims, then the remaining issues will be simplified for appeal in that they will only involve the arguments on the cited prior art of record, which arguments are not repeated in detail in this response.

The method being claimed should be fairly uncomplicated in its nature and implementation. In the prior art "Rieber" process for "pre-locating" an "integral" gasket within a pipe groove in a bell end of a thermoplastic pipe, the plain end of pipe is first heated. (The plain pipe end had previously been formed in, for example, an extrusion line at a pipe manufacturing plant). The heated pipe end is then forced over a forming mandrel on which is placed an elastomeric sealing gasket. Because the pipe end is heated, it can expand and flow over and around the elastomeric sealing gasket which is typically located in a slight depression or groove on the exterior surface of the cylindrical forming mandrel. The pipe end is then cooled and the mandrel is retracted, leaving the elastomeric gasket in place within a groove in the interior of the belled pipe end. The belled pipe end and gasket receiving groove are simultaneously formed about the elastomeric sealing gasket.

The above system works well for PVC pipe. However, polyethylene pipe has "memory

characteristics" which give it different expansion and contraction characteristics than PVC. It is not as easy to force a heated polyethylene pipe end over a forming mandrel and sealing gasket in the typical "Rieber" type manufacturing process, as described above..

Applicant proposes one solution to this problem. In Applicant's method, the belled pipe end is formed by "winding" a melt profile of thermoplastic material about the forming mandrel and elastomeric sealing gasket. To Applicant's knowledge, no one has used or suggested such a method for forming the belled end of polyethylene pipe. No one, to Applicant's knowledge, has proposed such a modification of the existing "Rieber" manufacturing processes.

Sundqvist is the only reference cited by the Examiner which shows winding a polyolefin melt profile on a mandrel as a step in plastic pipe manufacture. However, Sundqvist is concerned with making a pipe "joint", i.e., joining two pieces of pipe together. Note the original pipe end is shown generally at the region 5 in Figure 1 of Sundqvist. Sundqvist is not concerned with any of the problems of a "Rieber" type manufacturing process for locating a prestressed and "anchored" sealing gasket within a pipe groove, with the pipe groove being formed around the gasket as the pipe end is being formed. not claimed

Sznopek shows a pipe coupling of interesting design, but the design bears absolutely no resemblance to Applicant's design. Sznopek uses two annular rubber gaskets 30, 30', and a supported sleeve portion 36. A polyester body 10 is "built up" by applying a "length of fiber glass roving" impregnated with a polyester hardening system (Col. 7, lines 22-24), followed by an axial glass reinforcement 17 (col. 8, line 2). Note that the fiber glass material which is used may be "fiber glass roving strands" (Col. 7, lines 47-48). If the marks on the top of the body 10 in Figure 1 of the drawings are intended to illustrate these roving strands, they may be in the nature of strings of fiber. Note that circumferential and helical wraps of "scrim" may be utilized (Col. 8, line 4). While all of this makes for an interesting composite, multi-component structure, it really has nothing to do with Applicant's problem or its solution. Winding scrim about a gasket on a mandrel would not arrive at Applicant's claimed invention. near claim limitations, known to give burst in this case  
thermosetting resin reinforced plastic  
fiberglass "nonform plastic"

Combining Sznopek with Sundqvist would not arrive at Applicant's claimed invention, since Sundqvist's mandrel has a smooth exterior surface which is not equipped to locate a gasket. Nothing would suggest that Applicant's sealing gasket be first positioned on the mandrel of Sundqvist and then wrapped in some fashion as shown in Sznopek. Figure 4 of Sznopek shows his "rotatable mold mandrel". Note the main body portion 52 which is a cylindrical steel body which includes end portions 54 extending from the cylindrical portion to a hub (Col. 8, lines 52-54). This bears no

surprising for "nonform" of "polyethylene"  
Examiner's note on overall shape of region of decreased stress diameter in the middle of the pipe

portions 54 extending from the cylindrical portion to a hub (Col. 8, lines 52-54). This bears no resemblance to Applicant's "rotatably driven mandrel having a substantially cylindrical end section corresponding to the internal diameter of a bell connection to be formed" (Claim 4, as amended). The mandrels are completely different in design because of their completely different purposes.

Applicant has amended the independent method Claims 4 and 5 in view of the Examiner's remarks in order to explain the above method steps more explicitly. No additional fee is thought to be due at this time, since this response is being timely submitted. If any additional fee is due for the continued prosecution of this application, please charge the same to Applicant's Deposit Account No. 50-2555 (Whitaker, Chalk, Swindle & Sawyer, LLP).

Respectfully submitted,



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